

REMARKS

This is a full and timely response to the Office Action mailed June 19, 2003.
Reconsideration and allowance of the application and presently pending claims are respectfully requested.

Present Status of Patent Application

Upon entry of the amendments in this response, claims 1-8, 10, 12-26, 28, and 31-33 remain pending in the present application. More specifically, claims 1-8, 10, 12, 14-15, 22-26 and 28 have been currently amended, claims 9, 11, 27 and 29-30 have been canceled without prejudice, waiver or disclaimer, and claims 31-33 have been newly added. It is believed that the foregoing amendments add no new matter to the present application.

Reconsideration and allowance of the application and presently pending claims are respectfully requested.

Response to Objections/Rejections

A. Claim objections

a) Statement of the objection

The Office Action states that claims 4-9 are objected to because of the following informalities: "the weighting factor" recited in the claims lack proper antecedent bases, and that appropriate correction is required.

b) Response to the objection

Currently amended claims 4-9 have been appropriately corrected to address this objection.

B. Claim Rejections - 35 U.S.C. § 102(b)

a) Statement of the rejection

The Office Action states that claims 1-4, 6, 8-12, 20, 22, 24-25, and 27-30 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Miller (US 3,777,150); wherein the Miller reference was cited by Applicants in an information disclosure statement. .

b) Response to the rejection

Claim 1

The Office Action states that Miller discloses a method of detecting and correcting modal dispersion, including “modifying detected signals (using delay) by the multisegment photodetector,” while Applicants’ currently amended claim 1 reads in pertinent part “modifying detected signals ~~by~~ in the multisegment photodetector.”

Miller discloses a detector-equalizer circuit (and presumably, though not claimed specifically, a *method*) for equalizing the dispersion produced in a multimode fiber. Miller’s FIG. 3 illustrates this circuit as a platelet 30, together with delay networks 41 and 42, and amplifiers 43 and 44, wherein the delay networks and amplifiers are connected external to the platelet 30. While the signal produced from the platelet 30 is modified by these external elements, Applicants have been unable to find in Miller, disclosure of a method of signal modification taking place in platelet 30.

On the other hand, Applicants disclose in several embodiments relevant to claim 1, not merely an integrated detector system for “modifying detected signals ~~by~~ in the multisegment photodetector,” but also a method of doing so in a manner that is not disclosed by Miller.

In this connection, attention is drawn to page 4, lines 27-29 of the disclosure, where Applicants state: “It may be possible to implement any necessary alteration, or weighting factor, to the plurality of detected signal (sic) by the use of appropriate bias among the plurality of detected regions.” This aspect is further explained in page 6, lines 4-33, where Applicants utilize FIG 3 to explain a mechanism for adjusting the signals by providing positive bias 160 and negative bias 158.

In page 7, lines 1-5, Applicants state “In one embodiment, the modification made to the individually detected signal is by use of differing bias magnitude and polarity of each photodetection zone. In an alternative embodiment, the modification is achieved by any combination of electrical and mechanical instruments used to impart changes in amplitude and/or phase to the electrical signal.” (Emphasis added).

Consequently, Applicants respectfully assert that the Office Action rejection of claim 1 under 35 U.S.C 102(b) is improper because Miller does not disclose, at least Applicants’ “modifying detected signals ~~by~~ in the multisegment photodetector” of claim 1.

Applicants request that claim 1 be allowed.

Claims 2-4

The Office Action states that claims 2-4 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Miller. Applicants' currently amended claim 2 reads in pertinent part, "modifying detected signals ~~by~~ in the multisegment photodetector is performed *using weighting factors* that adjust the detected signals." (Italics added). Applicants have been unable to find in Miller, disclosure relating to at least the use of weighting factors in a multisegment photodetector as described in applicants' claim 2, as well as in claims 3 and 4.

Furthermore, as currently amended independent claim 1 is allowable, claims 2-4 that depends on claim 1, are also allowable as a matter of law. *In re Fine*, 837 F. 2d 1071 (Fed. Cir. 1988).

Applicants therefore respectfully request allowance of claims 2-4.

Claim 6

The Office Action states that claim 6 has been rejected under 35 U.S.C. § 102(b) as being anticipated by Miller. Applicants' currently amended claim 6 reads in pertinent part, "modifying detected signals ~~by~~ in the multisegment photodetector is performed by an amplification of at least one signal, wherein the amplification represents at least one ~~using amplification as the~~ *weighting factor*." (Italics added).

Applicants have been unable to find in Miller, disclosure relating to at least the use of such a weighting factor in a multisegment photodetector as described in applicants' claim 6.

Furthermore, as currently amended independent claim 1 is allowable, claim 6 that depends on claim 1, is also allowable as a matter of law. *In re Fine*, 837 F. 2d 1071 (Fed. Cir. 1988).

Applicants therefore respectfully request allowance of claim 6.

Claim 8

The Office Action states that claim 8 has been rejected under 35 U.S.C. § 102(b) as being anticipated by Miller. Applicants' currently amended claim 8 reads in pertinent part, "modifying detected signals ~~by~~ in the multisegment photodetector is performed by an applying a delay of at least signal, wherein the delay represents at least one ~~using delay as the~~ *weighting factor*." (Italics added).

Applicants have been unable to find in Miller, disclosure relating to at least the use of such a weighting factor in a multisegment photodetector as described in applicants' claim 8.

Furthermore, as currently amended independent claim 1 is allowable, claim 8 that depends on claim 1, is also allowable as a matter of law. *In re Fine*, 837 F. 2d 1071 (Fed. Cir. 1988).

Applicants therefore respectfully request allowance of claim 8.

Claim 10

The Office Action states that claim 10 has been rejected under 35 U.S.C. § 102(b) as being anticipated by Miller. Applicants' currently amended claim 10 reads in pertinent part, "adjusting a weighting factor that is applied in the multisegment photodetector." (Emphasis added)

Applicants have been unable to find in Miller, disclosure relating to at least the use of such a weighting factor in a multisegment photodetector as described in applicants' claim 10.

Furthermore, as currently amended independent claim 1 is allowable, claim 10 that depends on claim 1, is also allowable as a matter of law. *In re Fine*, 837 F. 2d 1071 (Fed. Cir. 1988).

Applicants therefore respectfully request allowance of claim 10.

Claim 12

The Office Action states that claim 10 has been rejected under 35 U.S.C. § 102(b) as being anticipated by Miller. As currently amended independent claim 1 is allowable, claim 12 that depends on claim 1, is also allowable as a matter of law. *In re Fine*, 837 F. 2d 1071 (Fed. Cir. 1988).

Applicants therefore respectfully request allowance of claim 12.

Claims 9, 11

Claims 9 and 11 have been cancelled without prejudice, waiver or disclaimer. Consequently, the Office Action rejection of claims 9 and 11 are rendered moot.

Claim 15

The Office Action states that claim 15 has been rejected under 35 U.S.C. § 102(b) as being anticipated by Miller. Applicants' currently amended claim 15 reads in pertinent part, "multiple detectors incorporating a weighting during detection to produce a plurality of producing detected electrical signals" (Italics added)

Applicants have been unable to find in Miller, disclosure relating to incorporation of such a weighting during detection. Miller's "weighting" is carried out after detection, and as such, Applicants submit that the rejection of claim 15 is improper, because Miller does not at least, disclose the use of such "multiple detectors incorporating a weighting."

Consequently, Applicants request allowance of claim 15.

Claims 17-18, 20, 22, and 24-25

The Office Action states that claims 17-18, 20, 22, and 24-25 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Miller. As currently amended independent claim 15 is allowable, claims 17-18, 20, 22, and 24-25 that directly/indirectly depend on claim 15, are also allowable as a matter of law. *In re Fine*, 837 F. 2d 1071 (Fed. Cir. 1988).

Consequently, Applicants request allowance of claims 17-18, 20, 22, and 24-25.

Claim 28

The Office Action states that claim 28 has been rejected under 35 U.S.C. § 102(b) as being anticipated by Miller. Applicants' currently amended claim 28 reads in pertinent part, "*a multisegment photodetector having a plurality of detection zones incorporating a weighting system.*" (Italics added)

Applicants have been unable to find in Miller, disclosure relating to incorporation of such a multisegment photodetector that incorporates a weighting system. Miller's "weighting" is carried out after detection, and as such, Applicants submit that the rejection of claim 28 is improper, because Miller does not at least, disclose the use of such "multisegment photodetector incorporating a weighting system."

Consequently, Applicants request allowance of claim 28.

Claims 27, 29, and 30

Claims 27, 29 and 30 have been cancelled without prejudice, waiver or disclaimer. Consequently, the Office Action rejection of claims 27, 29, and 30 are rendered moot.

C. Claim Rejections - 35 U.S.C. § 103(a)

a) Statement of the rejection

The Office Action states that claims 5, 7, 19, 23, and 26 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Miller (US 3,777,150).

The Office Action further states that claims 13, 14, and 21 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Miller (US 3,777,150) in view of Kapron et al (US 3,988,614).

b) Response to the rejection

Claims 5 and 7

The Office Action states that claims 5 and 7 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Miller. As currently amended independent claim 1 is allowable, claims 5 and 7 that depend on claim 1, are also allowable as a matter of law. *In re Fine*, 837 F. 2d 1071 (Fed. Cir. 1988).

Consequently, Applicants request allowance of claims 5 and 7.

Claims 19, 23, and 26

The Office Action states that claims 19, 23, and 26 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Miller. As currently amended independent claim 15 is allowable, claims 19, 23, and 26 that depend on claim 15, are also allowable as a matter of law. *In re Fine*, 837 F. 2d 1071 (Fed. Cir. 1988).

Consequently, Applicants request allowance of claims 19, 23, and 26.

Claims 13 and 14

The Office Action states that claims 13 and 14 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Miller. As currently amended independent claim 1 is allowable, claims 13 and 14 that depend on claim 1, are also allowable as a matter of law. *In re Fine*, 837 F. 2d 1071 (Fed. Cir. 1988).

Consequently, Applicants request allowance of claims 13 and 14.

Claim 21

The Office Action states that claim 21 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Miller. As currently amended independent claim 15 is allowable, claim 21 that

depends on claim 15, is also allowable as a matter of law. *In re Fine*, 837 F. 2d 1071 (Fed. Cir. 1988).

Consequently, Applicants request allowance of claim 21.

Prior Art Made of Record

The prior art made of record has been considered, but is not believed to affect the patentability of the presently pending claims.

CONCLUSION

In light of the foregoing amendments and for at least the reasons set forth above, Applicant respectfully submits that all objections and/or rejections have been traversed, rendered moot, and/or accommodated, and that claims 1-8, 10, 12-26, 28, and 31-33 are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

Respectfully submitted,



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